

A GAT CTG GCC AGC GCC GTG GGC ATC CAG TCC GGC AGC ATC TTT CAT CAC TTC AAG AGC AAG
 D D L A S A V G I Q S G S I F H H F K S K
 GAT GAG ATA TTG CGT GCC GTG ATG GAG GAA ACC ATC CAT TAC AAC ACC GCG ATG ATG CGC
 D D E I L R A V M E E T I H Y N T A M R
 GCT TCA CTG GAG GAG GCG AGC ACC GTG CGC GAA CGC GTG CTG GCG CTG ATC CGC TGC GAG
 D A S L E E A S T V R E R V L A L I R C E
 TTG CAG TCG ATC ATG GGC GGC AGT GGC GAG GCC ATG GCG GTG CTG GTC TAC GAA TGG CGC
 D L Q S I M G G S G E A M A V L V Y E W R
 TCG CTG TCG GCC GAA GGC CAG GCG CAC GTG CTG GCC CTG CGT GAC GTG TAT GAG CAG ATC T
 D S L S A E G Q A H V L A L R D V Y E Q I

FIG. 1A

EXHIBIT B

AGATCTTGAGCGTCATGAGTGCCTGGGTACGCTTTTCATCGCGTCCGGCGATCGAGTGGTGT
 D D L E R H E C L G Y A F S S R P A D R E W V
 R T R R I S L P H
 TTTTCAGGCGACGGTTTCTACAGGTAGAGTGGCCAGCCGTTTGCTCATCAATGAAGCCGGCA
 D F F Q G T V S Y K V R V A S R L L I N E S R A
 D K K L A R N G V L Y S H G A T Q E D I F A P C
 TTGATGTCGGCGCATTGATGGTTTGGCAATAGTCTCGGCCCGCAAGACTTCTGCGAAGCGGCTT
 D L M S A A L D G F G I V L G P Q D F L R T A L
 D Q H R R C Q I T K A Y H E A R L V E Q S R R Q
 GCGAGTGGCGAGTTGGTGGGTGTGGCGGAGTTGAGGCTCCGAGTGGTGGATGCATTGGTCT
 D A S G E L V R V L P E F E A P S R S M H L V
 D R T A L Q H P H Q R L K L S R T P R H M Q D
 ACACCGCAACCGCCAGCGTACCGCAAGTTGCGCTGCTTGTGAGACTGTGCTGGACGTTTGGT
 D Y T A N R Q R T A K L R C F V E T V L G R F G
 D V G C V A L T G G L Q A A K D L S H Q S T K T
 CCGTATGAGGAGCACCACCGTGGCGGTGCGCGGANGCACCTAAGATCT
 D P V
 D R Y S P A G G H R D G P - V

FIG. 1B



US006551795B1

(12) **United States Patent**
Rubenfield et al.

(10) **Patent No.:** US 6,551,795 B1
Date of Patent: Apr. 22, 2003

(54) **NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO *PSEUDOMONAS AERUGINOSA* FOR DIAGNOSTICS AND THERAPEUTICS**

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(73) **Assignee:** Genome Therapeutics Corporation, Waltham, MA (US)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 09/252,991

(22) **Filed:** Feb. 18, 1999

Related U.S. Application Data

(60) Provisional application No. 60/074,788, filed on Feb. 18, 1998, and provisional application No. 60/094,190, filed on Jul. 27, 1998.

(51) **Int. Cl.⁷** C12P 21/06; C12N 15/00; C07H 21/04

(52) **U.S. Cl.** 435/69.1; 536/23.1; 536/23.7; 435/6; 435/320.1; 435/253.3; 435/325

(58) **Field of Search** 536/23.1, 23.7; 435/6, 320.1, 69.1, 253.3, 325; 424/184.1; 514/44

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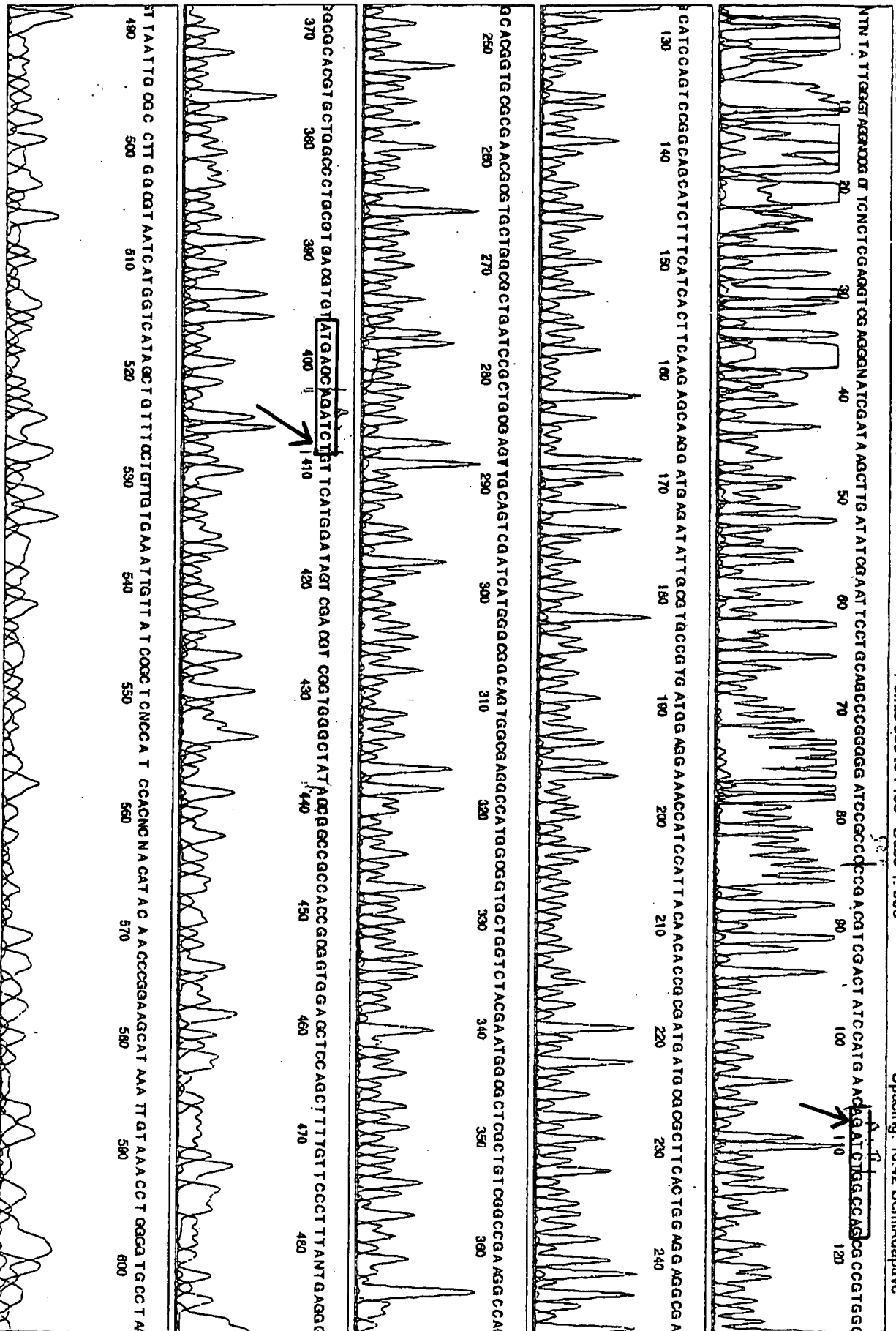
Primary Examiner—Marianne P. Allen

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(57) **ABSTRACT**

The invention provides isolated polypeptide and nucleic acid sequences derived from *Pseudomonas aeruginosa* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

26 Claims, No Drawings





lalign output for SEQ ID NO:1 vs. electropherograph

[ISREC-Server] Date: Wed Sep 17 17:42:51 MET 2003

resetting matrix to DNA ./wwtmp/lalign/.305.1.seq : 301 nt

ALIGN calculates a global alignment of two sequences
 version 2.0uPlease cite: Myers and Miller, CABIOS (1989) 4:11-17
 SEQ ID NO:1 301 nt vs.
 electropherograph 301 nt
 scoring matrix: DNA, gap penalties: -14/-4
 100.0% identity; Global alignment score: 1505

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./wwwt	GATCTGGCCAGCGCCGTGGGCATCCAGTCCGGCAGCATCTTTCATCACTTCAAGAGCAAG					
					
electr	GATCTGGCCAGCGCCGTGGGCATCCAGTCCGGCAGCATCTTTCATCACTTCAAGAGCAAG					
	10	20	30	40	50	60
	70	80	90	100	110	120
./wwwt	GATGAGATATTGCGTGCCGTGATGGAGGAAACCATCCATTACAACACCGCGATGATGCGC					
					
electr	GATGAGATATTGCGTGCCGTGATGGAGGAAACCATCCATTACAACACCGCGATGATGCGC					
	70	80	90	100	110	120
	130	140	150	160	170	180
./wwwt	GCTTCACTGGAGGAGGCGAGCACGGTGCGCGAACGCGTGCTGGCGCTGATCCGCTGCGAG					
					
electr	GCTTCACTGGAGGAGGCGAGCACGGTGCGCGAACGCGTGCTGGCGCTGATCCGCTGCGAG					
	130	140	150	160	170	180
	190	200	210	220	230	240
./wwwt	TTGCAGTCGATCATGGGCGGCAGTGGCGAGGCCATGGCGGTGCTGGTCTACGAATGGCGC					
					
electr	TTGCAGTCGATCATGGGCGGCAGTGGCGAGGCCATGGCGGTGCTGGTCTACGAATGGCGC					
	190	200	210	220	230	240
	250	260	270	280	290	300
./wwwt	TCGCTGTCGGCCGAAGGCCAGGCGCACGTGCTGGCCCTGCGTGACGTGTATGAGCAGATC					
					
electr	TCGCTGTCGGCCGAAGGCCAGGCGCACGTGCTGGCCCTGCGTGACGTGTATGAGCAGATC					
	250	260	270	280	290	300

./wwwt T
 :
 electr T

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EXHIBIT D

DNA Strider 1.0

3:35:45 PM

Untitled Sequence # 1 [1 to 302] -> 6-phase ORF Map <1>

DNA sequence 302 b.p. AGATCTGGCCAG ... ATGAGCAGATCT linear

